

CLAIMS:

1. An implantable fluid management device, comprising:
a catheter having a proximal end, a distal end, and an inner lumen extending
therethrough;
5 a plurality of fluid entry ports formed in a sidewall of the catheter and in fluid
communication with the inner lumen of the catheter; and
a fluid-impermeable barrier occluding selected fluid entry ports, the barrier being
selectively removable with respect to each of the selected fluid entry ports.
- 10 2. The device of claim 1, wherein the barrier is selected from the group consisting of a
membrane, a cap, a plug, and a film.
3. The device of claim 1, further comprising:
a microprocessor coupled to the catheter and effective to selectively control the
15 application of a stimulus to one or more of the barriers to remove the barrier; and
a plurality of conductors effective to carry an electric current, each conductor extending
from the microprocessor to one or more of the barriers.
4. The device of claim 3, wherein the microprocessor is effective to initiate removal of the
20 barrier in response to a signal received from a remote device.
5. The device of claim 3, further comprising a sensor disposed adjacent to one or more of
the selected fluid entry ports, the microprocessor being effective to initiate removal of the barrier
upon detection of a particular condition detected by the sensor.
- 25 6. The device of claim 3, wherein the stimulus is an electric current, and the barrier is
formed from a material selected from the group consisting of copper, gold, silver, zinc, and
conductive polymers or copolymers.

7. The device of claim 1, wherein the plurality of fluid entry ports are arranged in rows that extend around a diameter of the catheter and that are positioned longitudinally apart from one another, each row including at least one fluid entry port.

5 8. The device of claim 7, further comprising a microprocessor effective to selectively remove the barrier on each fluid entry port in a particular row.

9. The device of claim 7, further comprising a plurality of filter members, each filter member extending transversely to a longitudinal axis of the catheter member and being
10 positioned between two rows of fluid entry ports.

10. The device of claim 1, further comprising a filter material disposed around an inner diameter of the catheter and extending between the proximal and distal ends of the catheter.

15 11. A method of maintaining fluid flow through a catheter, comprising:
providing a catheter comprising

an elongate member having a proximal end, a distal end, and an inner lumen extending therethrough,

a plurality of fluid entry ports formed in the elongate member and arranged in
20 rows spaced apart from one another along a longitudinal length of the elongate member, each row including at least one fluid entry port,

a disintegratable barrier extending across selected fluid entry ports,
a row of barrier-free fluid entry ports adjacent the distal end of the elongate member, and

25 a control member effective to selectively remove the barrier from each of the fluid entry ports;

detecting a blockage of fluid-flow through the distal-most barrier-free row of fluid entry ports;

activating the control member to remove the barrier from a row of fluid entry ports
30 positioned just proximal to the distal-most row of fluid entry ports; and

repeating the steps of detecting and activating as necessary.